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ABSTRACT

Since 1974, Cincinnati Technical College (CTC) has offered a Developmental Education (DE) program designed to upgrade students' skills in mathematics, reading, English, and basic sciences, as well as study and interpersonal skills. The DE program offers students, particularly those with low combined Differential Aptitude Test (DAT) scores, a multifaceted approach to learning involving individualized, self-paced courses; traditionally structured courses; peer tutoring services; learning laboratory instruction; and audio-visual tutorial programs. A study was conducted to examine the effect of the DE program on the graduation rates of students with low DAT scores. Of the 1,308 students served by the DE department between 1980 and 1984, 136, or 22% of those who actually started a college program at CTC graduated from CTC. Of these graduates, 77% entered the DE program with a DAT score below 50. The number of DE courses taken ranged from one to 13, with the average being two. Based on study findings, it was concluded that students who enter CTC with low DAT scores with the intention of graduating are capable of doing so at a rate consistent with students in other DE programs both nationally and statewide when given the extra preparation afforded by the DE program. (EJV)

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THE IMPACT OF DEVELOPMENTAL EDUCATION ON THE GRADUATION RATE OF STUDENTS WITH LOW COMBINED DIFFERENTIAL APTITUDE TEST SCORES

July, 1986

by

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BACKGROUND OF THE PRESENT STUDY

Since 1974 Cincinnati Technical College (CTC) has committed itself to a Developmental Education Program (DE) designed to upgrade skills in mathemtics, reading, English, and study skills. The program has been expanded to also include courses in the basic sciences and interpersonal skills. The DE program established at CTC has followed the philosophies of John E. Roueche, professor of junior and community college education and an authority on Developmental Education; Benjamin Bloom and Jerome Bruner. This philsophy is that "almost any person can learn the basic curriculum given enough time and appropriate help."

The DE program at CTC has been open to all students but particularly those with combined Differential Aptitude Test (DAT) scores below 50. These students have been accepted into various technical programs on the condition they take certain DE courses in order to improve their academic skills.

The courses in DE are designed to take the student from his entry level to a higher level of learning. Courses are structured so that a student who takes the entire sequence moves from highly individualized, success oriented, self paced courses to traditional subject courses such as Biology or Chemistry that are taught in a more structured traditional

manner similar to those of the regular college. All students are offered the services of peer tutoring as an additional aid in subjects which may be causing them difficulty. Instructors are present in the learning laboratory for assistance. Audio-visual tutorial programs are available for help in certain difficult areas. There is a multifaceted approach to learning in the hope that many different learning styles are satisfied.

Once a student is identified as a potential DE student the sequence of courses and course content is determined by a battery of tests used to assess weaknesses in basic skills, then assistance is provided by the DE advisors and staff. All of these services are available to any student enrolled in at least one DE course at the college.

There is a strong commitment from CTC to DE. It has been well funded in the past and has been granted the status of having its own department and director. The program housed in a learning laboratory complete with video tape viewers, tapes, recorders, computers and other learning aids. The DE staff is committed to the philosophy of DE and works to instill a feeling of success for the students.

There is another group of students who enter CTC with low DAT scores who never are placed in DE for a variety of reasons:

Some students will enter CTC as non degree seeking

students (non matriculant status) and take both basic science and non science courses prior to gaining admission to the college. If these students, regardless of DAT scores, pass the courses in the regular curriculum then they usually are not asked to go back and take DE or prerequisites.

Some program coordinators in an effort to discourage students with low DAT scores from entering the college recommend selected first or second quarter courses on a condition that they be passed with a "C" or better as a test for readiness for college work. These coordinators do not believe in the philosophy of DE.

Some students may have attended another institution and have some courses transfer in with C's or better even though the DAT score or the DE placement test indicates a need for remedial work.

STATEMENT OF THE PROBLEM

Traditional DE had enjoyed considerable administrative support at CTC and is viewed by the administration as an attraction to enrolling in CTC. However, on the other hand many of the coordinators and some program directors do not share the administration's enthusiasm for DE. Rather than give the marginal student a chance at success in their program through the use of Developmental Education the coordinators and

directors select only those students who will be successful without any further help. Because of this attitude many students who might have become successful productive members of society are denied the opportunity to enter the mainstream.

PURPOSE OF STUDY

To study graduation rates of those students with combined DAT scores of below 50. To determine the effect of DE on graduation rates of students having low DAT scores.

SIGNIFICANCE OF THE STUDY

Could impact on the use of DE at CTC. Could impact on the admissions process of accepting/not accepting students with low DAT scores.

LIMITATIONS OF STUDY

There may not be a large enough group with low combined DAT scores who took DE.

HYPOTHESIS

Students with combined DAT scores of less than 50 are able to enter a program and graduate after completing prescribed DE courses.

METHODOLOGY

Data will be gathered from matriculated students records from January, 1980 to December, 1984; who when entering CTC had combined DAT verbal and numerical aptitude scores between 20 and 50. The most current transcript from each student will be used in the analysis.

PRESENTATION OF DATA

The following data was gathered from students enrolled at CTC from 1980 thru 1984. During this time CTC's Developmental Education department offered 15 non-degree courses serving 1,308 students. One-hundred thirty-six of these students graduated from the institution. This is a graduation rate of 22% based on 627 students who actually started their program. The data is presented in this manner since it reflects a truer picture. Many of our students enroll in DE courses with no intention of entering a program here at CTC. However, they are using our facilities to build their skills before entering a program elsewhere: nursing school or an industrial training program in the area or other post-secondary institution. In addition, some attend just for their self-benefit.

We defined starting a program as those who took at least one core course in their program or participated in Co-op for one term.

Of these graduates, 77% entered DE below a combined VR/NA DAT score of 50. Twenty-seven percent tested below a 25 combined VR/NA. At graduation these students average TGPA was 2.78. This compares very favorably with a random sample of 444 graduates from the same time frame having an overall TGPA of 3.07. The students ages when entering DE ranged from 21 to 56 with 28 years old being the average.

The number of Developmental Education courses taken ranged from one to thirteen with the average being two.

The number of graduates from Health and Business divisions are approximately the same - Health with 64 and Business with 66. In the Engineering division there were six graduates. Table I gives a breakdown of graduates by division and program.

TABLE I

Business Division

Business Management	Chef	Graphic Comm.	Hotel-Motel Management	Loss Control	Managerial Acctg.
8	2	1	4	1	3
Ornamental Horticulture	Real Estate	Sales Marketing	Administr. Support	General Office	
1	1	7	1	9	
Word Processing	Exec. Sec.	Data Management	Data Processing		
4	2	11	10		

TABLE I (cont'd.)

Health Division

Diet.Tech./ Nutrition	Diet. Certificate	Medical Assistant	Med. Lab Tech.	Med.Rec. Tech.
2	14	7	8	8

Respiratory Therapy	Resp. Therapy Certificate	Surgical Tech.	Unit Clerk
5	9	11	1

Engineering Division

Aviation	Electrical	Electro-Mechanical	Mechanical
2	2	1	1

Conclusion, Summary

Students who enter CTC with low DAT scores with the intention of graduating are capable when given the extra preparation afforded by Developmental Education. They are graduating at a rate consistent with other DE programs both nationally and statewide. Nationally the graduation rate for students in two year colleges is about 30% regardless of how they come prepared to enter programs.

In order to graduate from CTC a student must have both a core GPA and a TGPA of 2.00 or above. The average of our students graduating after taking DE preparation is 2.78. This is compatible with the college wide average GPA for graduates.